



Frequently Asked Questions about Fish Consumption Advisories in Virginia Waters

Q: What is a fish consumption advisory?

A: A fish consumption advisory is a public health alert that provides recommendations on safe fish consumption when contaminants are detected in fish tissues in Virginia waterways. Contaminants listed in fish consumption advisories in Virginia include polychlorinated biphenyls (PCBs), mercury, and Kepone. PCBs are the most common contaminant resulting in fish consumption advisories in Virginia.

The advisory explains what sections of a waterway are under advisory, what species of fish have been determined to have contaminants above the level of concern, and how much of that species can safely be consumed within a one month period. VDH fish consumption advisories address recreational fishing only, and are recommendations for public health, not regulations or laws. These advisories are not for commercial fish sold in markets. The Food and Drug Administration (FDA) sets and enforces the standards for contaminants in fish that are sold commercially.

By following the recommended advisories for eating fish, you can reduce your risk of adverse health effects from exposure to various contaminants and still enjoy the benefits of eating fish. The nutritional and cardiovascular or other health benefits of eating fish are well established, and these advisories can help people make better choices for safe consumption.

Q: Who determines when an advisory is issued?

A: The Virginia Department of Health (VDH) issues the advisories based on analysis of data from fish tissues collected by the Virginia Department of Environmental Quality (DEQ). When the amount of contaminants detected exceeds the levels of concern established by VDH, a fish consumption advisory is issued to the public.

Q: What are PCBs?

A: PCBs are chemical contaminants and are classified by the U.S. Environmental Protection Agency as probable human carcinogens. There are no known current sources of PCBs in water. Past uses in hydraulic fluids, plasticizers, adhesives, fire retardants, pesticide extenders, de-dusting agents, inks, cutting oils, heat transfer systems, carbonless reproducing paper, and leaking transformers have contributed to the environmental contamination.

Q: How do those substances impact human health?

A: Long-term exposure to PCBs may increase the risk of cancer. Some studies in humans have also suggested that PCB exposure may cause adverse developmental effects in children and developing fetuses. Infants and children are particularly sensitive to the effects of PCBs since their nervous systems are still developing. PCBs also build up in women's bodies and are often passed on in the mother's milk. Therefore, VDH is recommending that high risk individuals, such as pregnant women, woman planning to become pregnant, nursing mothers, infants, and young children should avoid eating PCB-contaminated fish from the advisory areas.

Q: Have the concentrations of PCBs increased in fish?

A: The concentrations of PCBs in fish have been relatively consistent and have not changed significantly over the years.

Q: Why are the guidelines for PCBs being lowered?

A: The new guidelines have been made more stringent using more conservative assumptions to better protect the public health. Virginia shares its waters with Maryland and North Carolina, and these states have also lowered their guidelines for PCBs in recent years. The new guidelines provide more consistent advice to regional fishers.

Q: What are the restrictions on meal consumption from the advisory area?

A: When eating fish from waters where PCB is listed as a primary contaminant, it is important to limit fish meals according to the specific advisory for that waterbody. For example, if you eat two meals of white perch from the James River, you should not eat other species of fish with the same PCB advisory for the rest of the month from that advisory area. Also, you should review the advisories together if you eat fish from more than one waterbody. For example, if you eat two meals of James River white perch, you should not eat largemouth bass from the Roanoke River for the rest of the month since both of these species have "eat no more than two meals per month" advisories and both are based on PCB contamination.

Q: Is there a medical test to show whether I have been exposed to PCBs?

A: Tests are available to determine if PCBs are in your blood, body fat, or breast milk. These tests cannot show the exact amount or type of PCBs you were exposed to or for how long you were exposed. These tests do not predict whether you will experience harmful health effects. Blood tests are the best method for detecting recent exposures to large amounts of PCBs. Fat biopsies (small amounts of fat taken with a needle and syringe) may be better than blood tests for determining whether you were ever exposed to PCBs. Fat biopsy tests are not routinely available at your doctor's office because they require special equipment to complete them. Nearly everyone has been exposed to PCBs because these chemicals are found throughout the environment, and nearly all persons are likely to have detectable amounts of PCBs in their blood or body fat.

Q: I have been eating fish from the advisory area all my life. Will I have adverse health effects?

A: There are no immediate threats to health from eating fish from the advisory area. Eating more than the recommended amount of fish does not mean that a person will definitely have adverse health effects. Recommendations regarding PCBs and fish consumption are not a measure of threat to health. Instead, they reflect an assessment of the estimated risk of potential cancer if fish from the same area are consumed frequently over a period of several years. VDH recommendations are based on laboratory animal studies and assuming the worst possible case scenario. The actual risk is most likely to be far less. Studies in humans have not shown that PCBs cause cancer.

Q: What can be done to reduce the health risk from eating fish containing PCBs?

A: PCB levels can be reduced in fish by following these guidelines:

- Remove the skin, fat (from the belly and top of the fish) and internal organs where PCBs are most likely to accumulate before cooking the fish.
- Cook the fish by broiling, baking, or grilling so that the fat drains away. By letting the fat drain away, PCBs stored in the fatty tissue of the fish are removed.
- Discard the fats that cook out of the fish.
- Eat smaller, younger fish (within the legal limits). They are less likely to contain harmful levels of PCBs than larger, older fish.
- Avoid or reduce the amount of fish drippings or broth that are used to flavor the meal. These drippings may contain higher levels of PCBs.
- Eat less deep fried fish since frying seals PCBs into the fatty tissue.

Q: Is it safe to swim in waters where fish have been shown to have PCB contamination?

A: In general, there is no danger from the water because PCBs are slightly soluble in water and the contamination is only in the fish and sediment. Therefore, recreational use of waters such as swimming, skiing, and boating, does not pose a health risk.

Q: Why are certain fish species included in the fish consumption advisory and others are not?

A: Because PCBs are in the sediment at the bottom of rivers, streams and lakes and not in the water, fish that feed on the bottom (bottom feeders) are most likely to ingest PCBs through the food chain. Fish accumulate PCBs over a period of time from sediment and the food chain. Older, larger fish tend to have more PCBs than younger, smaller fish.

Q: Is it safe to eat fish species that have not been mentioned in the advisory?

A: DEQ tests for contaminants in various representative fish species such as sportfish and bottom feeding fish from a sampling location. VDH issues advisories for those fish species which are found to be contaminated above the level of concern for human health. Fish species that do not exceed the level of concern are generally safe to eat. However, people may take precautions to limit consumption of similar species of fish from the locations where advisories have been issued.

Q: Whom should I contact to get more information on fish consumption advisories or PCBs?

A: For further information regarding fish consumption advisories or the health effects of PCBs, please contact the Virginia Department of Health, Division of Health Hazards Control, 109 Governor Street, Room 338C, Richmond, Virginia, 23219, or call (804) 864 -8182. For information regarding sampling, analysis, and future testing of fish, contact the Virginia Department of Environmental Quality at (804) 698-4000. For a current list of VDH fish consumption advisories, go to http://www.vdh.virginia.gov/hhcontrol/fishing_advisories.htm.